

WISCONSIN EPI EXPRESS

March 29, 2004

[Wisconsin Department of Health & Family Services](#)
Division of Public Health
Bureau of Communicable Diseases

"Surveillance provides information for action." [World Health Organization](#)

The WISCONSIN EPI EXPRESS provides a regular update on communicable disease issues of importance in our state and is intended primarily for participants in the public health surveillance system. Please let us know if the topics covered are on target or if there are others that we should be addressing. Thank you. Herb Bostrom: bostrhh@dhfs.state.wi.us

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1. SURVEILLANCE FOR SHIGA TOXIN-PRODUCING *E.COLI* (STEC), WISCONSIN, 2002-2003

On April 1, 2000, in addition to *E. coli* O157:H7, all cases of Shiga toxin-producing *E. coli* (STEC) infection became reportable in Wisconsin under State Statute 252.05 and Administrative Rule Chapter HFS-145. STEC infections may cause illnesses from a mild diarrhea to more severe infections such as hemorrhagic colitis and hemolytic-uremic syndrome (HUS). STEC has been isolated from humans throughout the United States in association with large foodborne outbreaks and sporadic illness [1, 2, 3].

Recently, the Centers for Disease Control and Prevention (CDC) has promoted programs to enhance the surveillance and reporting of *E. coli* O157:H7 and STEC infections. The Wisconsin Division of Public Health, Bureau of Communicable Diseases (BCD) and the Wisconsin State Laboratory of Hygiene (WSLH) formed a partnership with clinical laboratories throughout Wisconsin to initiate a pilot study to identify these pathogens. This report of STEC surveillance includes data collected during 2002-2003.

Methods

In June 2002, BCD and WSLH initiated a program to confirm pre-screened, positive STEC specimens. In January 2003, the BCD enhanced the program by contacting 15 laboratories via telephone and letters requesting specimen submission to WSLH for STEC screening and identification; services were provided to participating laboratories under the fee exempt agreement. Stool specimens were submitted to WSLH for initial screening (EIA) and confirmatory testing (PCR). Positive isolates were then forwarded to CDC for serotype identification. Appendix 1 following the references describes the WSLH requirements for STEC specimen submission.

Results

In 2002, 36 specimens from 14 laboratories were submitted to the WSLH for STEC screening. Patients providing specimens resided in at least 16 Wisconsin counties. Six specimens were positive for STEC; four isolates had confirmed serotypes (one *E. coli* O103:H2, two O145:H2, and one O126:H pending) and two were undetermined. In addition, two *E. coli* O157:H7 isolates were recovered from stools that

originally were negative for O157:H7. Fifteen *E. coli* O157:HNM tested by PCR also had Shiga toxin-producing genes.

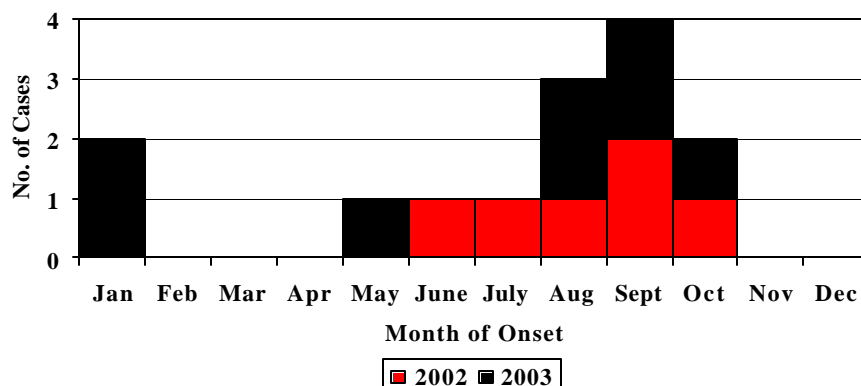
In 2003, 39 specimens from 17 laboratories were submitted to the WSLH for STEC screening. Patients providing specimens resided in at least 17 Wisconsin counties. Eight specimens were positive for STEC; three isolates had confirmed serotypes (*E. coli* O111:HNM, O103:H2, and O28ac:H25). Three isolates *E. coli* O157:H7 and two *E. coli* O157:HNM were recovered from stools that originally were undetected for *E. coli*. Five other specimens positive for STEC were identified but samples were either not available for further testing, or serotypes were undetermined or were still pending (Table 1).

Table 1. Results of STEC testing, Wisconsin, 2002-2003

	2002	2003
Total specimens tested	36	39
Negative for STEC with screening	13	26
Total number positive for STEC	23	13
STEC positive: with serotype	4	3
STEC positive: samples not available for testing	0	2
STEC positive: unable to determine serotype	2	1
STEC positive: serotype pending	0	2
<i>E. coli</i> O157:H7 isolates	2	3
<i>E. coli</i> O157:HNM isolates	15	2

The 14 STEC infections in 2002-2003 occurred in 6 (43%) females and 8 (57%) males. Ages of case-patients included 7 patients less than 13 years old, four patients 13-19 years old, two patients 20-39 years old, and two patients greater than 50 years old. During 2002-2003, STEC infections occurred in residents of at least 9 Wisconsin counties: Dane, Jefferson, Milwaukee, Outagamie, Racine, St. Croix, Trempeleau, Washington, and Waukesha. Months of onset of STEC related illness is summarized in Figure 1.

Figure 1: STEC infections by month of illness onset, Wisconsin, 2002-2003



Summary

Enhanced surveillance will allow BCD to follow up STEC cases to assess sources of infection and to prevent future outbreaks. Expanding this program will also enhance *E. coli* O157:H7 and *E. coli* O157:HNM surveillance. BCD and WSLH will provide STEC testing services to all laboratories throughout Wisconsin.

We greatly appreciate the contributions of those who have supported this program. If you have any questions regarding STEC surveillance program, please contact Diep (Zip) Hoang Johnson (DPH) at (608) 267-7422. For specific questions on specimen collection and kits, please contact Tim Monson (WSLH) at 608-263-3421.

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References

1. Centers for Disease Control and Prevention. Outbreak of acute gastroenteritis attributed to *Escherichia coli* serotype O104:H2--Helena, Montana, 1994. MMWR July 14, 1995/ 44 (27); 501-503.
2. Caprioli A, Luzzi I, Rosimini F, et al. Community-wide outbreak of hemolytic-uremic syndrome associated with non-O157 verocytotoxin-producing *Escherichia coli*. J Infect Dis 1994; 169:208-11.
3. Hiruta N, Murase T, Okamura N. An outbreak of diarrhea due to multiple antimicrobial-resistant Shiga toxin-producing *Escherichia coli* O26:H11 in a nursery. Epidemiol Infect 2000; 127: 221-227.

Appendix 1. WSLH lab requirements for STEC testing

1. There will be no charge to your laboratory or your clients for this testing.
2. The WSLH will provide Cary Blair specimen containers (kit #10) for this study. A specific demographic data sheet included in the kit must be completed and submitted to WSLH with the specimen.
3. Stool specimens submitted for STEC testing must meet either one or both of the following criteria:
 - a. Specimen from any patient (particularly interested in children), with a history of bloody diarrhea.
 - b. Specimen from a patient with a diagnosis of hemolytic uremic syndrome (HUS)
4. Submit **only one** stool per patient.
5. The collected specimen should have been screened for routine enteric pathogens (*Salmonella*, *Shigella*, *E. coli* O157:H7*, and *Campylobacter*) and have negative results for these agents.
6. Contact your local Dunham Express office to ship specimens. Request the billing to be charged to the WSLH "CDD" account.
7. The WSLH will be testing specimens in batches using a commercial STEC EIA procedure and results will be reported to the laboratories involved and the DPH. **This testing is for surveillance only, and is not for diagnostic purposes.**

* **Reminder:** Laboratories are encouraged to submit **all *E. coli* O157:H7** isolates to the WSLH for PFGE testing (fee exempt) in order to help us identify clusters of illness and the recognition of outbreaks.

2. UPCOMING CONFERENCE ON EMERGING INFECTIOUS DISEASE ISSUES IN LONG-TERM CARE

The University of Wisconsin Medical School's Department of Medicine, and the Wisconsin Antibiotic Resistance Network (WARN), in conjunction with Gundersen Lutheran Inc., are sponsoring a day long workshop on Friday May 21, that will address a number of communicable disease issues that are important for long-term care facilities. The conference will be at the Monona Terrace Community and Convention Center in downtown Madison, with registration beginning at 7:15 AM, and adjournment at 5:00 PM. The conference faculty includes state and national experts, and the agenda will include sessions addressing the following:

- An Overview of Infectious Disease Issues in Long-Term Care.
- The Scope of Antimicrobial Resistant Organisms Affecting Long-Term Care.
- Infection Control in Long-Term Care.
- Approach to the Evaluation of Fever in Long-Term Care.
- Lower Respiratory Infections in Long-Term Care.
- Urinary Tract Infections in Long-Term Care.
- Influenza and Antiviral Agents.
- Practical Aspects of Nursing Care and Prevention.

More information and registration forms can be obtained by contacting Cathy Means in The UW Office of Continuing Medical Education at (608) 263-6337 or cjmeans@wisc.edu

3. CDC RELEASES GUIDE AND MODEL PROTOCOL ON HIV RAPID TESTING IN LABOR AND DELIVERY

The Centers for Disease Control and Prevention recently published a 24-page HIV rapid testing guide and model protocol titled *Rapid HIV Antibody Testing During Labor and Delivery for Women of Unknown HIV Status*. This document offers guidance and practical tips to clinicians, laboratorians, hospital administrators, and policymakers who are planning a program for HIV rapid testing during labor and delivery for women of unknown HIV status. The document addresses key elements of a model protocol for rapid testing during labor and delivery as well as management consideration in implementing a facility-based protocol. This resource is available at http://www.cdc.gov/hiv/rapid_testing/rt-labor&delivery.htm

4. COMPENSATION FOR INJURED SMALLPOX VACCINEES

Members of smallpox emergency response teams who were injured from receiving the smallpox vaccine may be eligible for compensation under the recently established federal Smallpox Vaccine Injury Compensation Program. Also available are benefits for persons who sustained a medical injury from

exposure to the vaccinia virus from a vaccinated person as well as death benefits for survivors of persons who died as a direct result of the smallpox vaccine.

The Division of Public Health (DPH) has copies of the request forms and instructions for those who wish to file a claim. They can also be obtained at www.hrsa.gov/smallpoxinjury . The web page also contains frequently asked questions and other information to assist individuals in determining eligibility. A toll-free helpline is also available at 1-888-496-0338.

If you are filing a claim, you must contact DPH so that we can provide the compensation program with documentation of your vaccine and any reported adverse events. Call Lorna Will at 608-261-6387 or Gwen Borlaug at 608-267-7711 to notify us of your claim or to obtain reporting forms.

Filing Deadlines (subject to change):

- Forms concerning an injured smallpox vaccinee must be postmarked within one year of receiving the vaccine.
- Forms concerning a contact of a vaccinee must be filed within two years of the date of onset of the injury.

5. ADVANCE NOTICE OF A SHORT-TERM ENHANCED HEPATITIS C SURVEILLANCE PROJECT IN WISCONSIN

To gain a more complete understanding of hepatitis C in Wisconsin, the Wisconsin Hepatitis C Program will conduct an enhanced hepatitis C surveillance project in June and July 2004. During these months, local health departments will be asked to collect additional information on risk factors, access to health care and receipt of hepatitis services from persons reported with hepatitis C. The information will be collected on a 2-page scannable form and includes many of the same points public health nurses routinely discuss with persons who have hepatitis C. Local health department health officers will receive a letter regarding this project in April and Marjorie Hurie will discuss this project at regional WALHDAB meetings in April and May. Among other outcomes, this project is expected to yield data that will help quantify the need for additional resources for the care and treatment of people with hepatitis C. The importance of local health department participation in this project cannot be overestimated, so before it even starts the Hepatitis C Program would like to thank all the public health nurses whose dedication and interpersonal skills will contribute to its success.

6. WATCH FOR PRIMARY CARE PROVIDER HEPATITIS MAILING

In Spring 2004, the Bureau of Communicable Diseases will send a mailing to Wisconsin primary care providers (internists, family physicians, advanced practice nurse prescribers and physician assistants) on hepatitis. Local health departments, Division of Public Health Regional Offices and AIDS Service Organizations will also receive this mailing.

Included in the mailing will be:

- Samples of patient education materials on hepatitis A, B and C;
- Information on the Wisconsin Immunization Registry;
- The 2004 Adult Immunization Schedule that has been approved by the Advisory Committee on Immunization Practices;
- Guidelines for interpreting hepatitis B and C serologic test results;
- 2003 hepatitis A, B and C surveillance summaries; and

- Hepatitis A, B and C reporting requirements and the Wisconsin Acute and Communicable Disease Case Report form.

This mailing is one of several activities included in the *Wisconsin Hepatitis Strategic Plan* to inform health care providers about hepatitis resources and prevention and detection recommendations.

Telephone Reporting of Unusual Disease Occurrences

Occurrences of diseases that are uncommon or atypical in Wisconsin, and outbreaks or clusters of disease which are identified, should be reported by phone as soon as possible, to (608) 258-0099. Reports may be made to this number on a 24/7 basis, but please do not use it for normal and routine disease reporting

To be added to or removed from the distribution list contact:

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